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EXAMINER	
KARIKARI, KWASI	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/500,632	RUUTU ET AL.	
	Examiner	Art Unit	
	Kwasi Karikari	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,4-13 and 15-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,4-13 and 15-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/15/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Response to Arguments

2. Applicant's arguments with respect to claims 2,4-13 and 15-34 have been considered but are moot in view of the new ground(s) of rejection.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/14/2006 has been entered.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 09/15/2005 is in compliance with the provision of 37 CFR 1.97, has been considered by the Examiner, and made of record in the application file.

5. Claims 1,3 and 14 have been canceled.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a) because they fail to show that the first and second receiving units are the same entity. Figure 5 makes an attempt to show that the first and second receiving units are the same entity, however it is unclear for an ordinary skill in the art to interpret items 6a and 6b as described in the specification (see Page 14, example 3). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 34 is rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter of a computer program. A program not claimed as embodied in computer-readable media is non-functional descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1754 (claim to a program per se held nonstatutory). Therefore, since the claimed program is not tangibly embodied in a physical medium and encoded on a computer-readable medium then the Applicants has not complied with 35 U.S.C 101. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

a. Claims 15 and 26-34 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification mentions that the first and second receiving units can be at

the same location at the same time; but the claimed limitations and the Fig. 5 fail to show how the first and second receiving units at different known locations can at the same time be the same entity. Specifically, it is unclear the functionality of items 6a and 6b in figure 5 in correspondence to Page 14, example 3 in the specification.

All claims that depend on the above rejected claims are also rejected for fully incorporating the deficiencies of the above rejected claims from which they depend. Appropriate corrections are required.

b. Claims 17,19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended claimed limitations "are" and "phones", in claims 17,19 and 20 are not clearly described in the specification as originally filed and these constitute new matter. For examination purposes, the examiner will treat the rejected claims in light of the specification. All claims that depend on the above rejected claims are also rejected for fully incorporating the deficiencies of the above rejected claims from which they depend. Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In claims 15 and 26-34, the applicant recites the limitations "the first and second receivers", however, there are insufficient prior antecedent basis for these limitations in the claims. For examination purposes examiner the examiner will treat the claimed limitation "the first and second receivers" in light of the specification. All claims that depend on the above rejected claims are also rejected for fully incorporating the deficiencies of the above rejected claims from which they depend. Appropriate corrections are required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2,4-13,15,16,19-24,26 and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderford, Jr. et al., (U.S. 4,799,062) (hereinafter Sanderford) in view of Christy et al. (U.S 4,665,404), (hereinafter Christy).

Regarding **claim 15,** Sanderford discloses telecommunications system (position determination system 100, see Fig. 2) comprising:

a first transmitter unit situated at a first, known location (mobile reference transmitter 108);

a second transmitter unit situated at a second, unknown location (transmitter 108 at unknown location);

a first receiving unit at a third, known location arranged to receive signals from the first and second transmitter units (base repeater 110 at known location to receive reference and radio wave signals from the first and second transmitters respectively, see col. 6, lines 36-54), and

a second receiving unit (base repeater 110 at known location to receive reference and radio wave signals from the first (108) and second (106) transmitters respectively, see col. 6, lines 36-54) at a fourth, known location arranged to receive signals from the first and second transmitter units, wherein the said signal received by the first and second receiving units are usable to ascertain the location of the second transmitter unit,(base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47; and central monitoring station 115, which is coupled to base repeaters (110), uses the measurements from base repeaters to computer for the location of unknown transmitter 106, see col. 6, lines 36-54); but fails to disclose that the first and second receivers are in the same entity.

However, Christy teaches mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claim 2,** Sanderford discloses the telecommunications system according to claim 15, wherein the signals are indicative of the time taken for the signals to arrive at the first and second receiving units from the first and second transmitters (signals receives at repeaters 110 provide the propagation time difference that each repeater relays to the central monitoring station, which is coupled to the base repeaters 110, (see col. 5, lines 35-54).

Regarding **claim 4**, as applied to claim 15, Sanderford fails to teach the first and/or second receiving units are moveable between a plurality of locations and are both arranged to receive a pair of signals when in each of the plurality of locations.

However Christy teaches mobile receivers 106 and 108 (see Fig. 1).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claim 5,** Sanderford further discloses the telecommunications

system according to claim 4, wherein a said pair of signals (radio wave and reference signals) received by the first receiving unit (110) and a said pair of signals received by the second receiving unit (110) are together useable to calculate a range of possible locations of the second transmitter unit (performing hyperbolic lines of position calculation to determine the location of the unknown transmitter 106, see col. 5, line 48- col. 6, line 5).

Regarding **claim 6,** Sanderford further discloses the telecommunications system according to claim 5, wherein the range of possible locations is in the form of a hyperbola in the X-Y plane in which the second transmitter (106) unit is located, the said hyperbola running through substantially the location of the second transmitter unit (performing hyperbolic lines of position calculation to determine the location of the unknown transmitter 106, see col. 5, line 48- col. 6, line 5).

Regarding **claim 7,** Sanderford further discloses the telecommunications system according to claim 5, wherein in each of the plurality of locations the first and second receiving units receive pairs of signals which differ from those pairs of signals received when the first and second receiving units are in others of the plurality of locations and the said different pairs Of signals are together usable to calculate different ranges of possible locations of the second transmitter unit (the differential position vector derived from the radio wave and reference signals is used to computer for the location of the unknown transmitter 106, see col. 6, lines 35-53).

Regarding **claim 8,** Sanderford further discloses the telecommunications system according to claim 7, wherein the different ranges of possible locations substantially coincide at a single common location that is substantially the location of the second transmitter unit (performing hyperbolic lines of position calculation to determine the location of the unknown transmitter 106, see col. 5, line 48- col. 6, line 5).

Regarding **claim 9,** Sanderford further discloses the telecommunications system (100) according to claim 4, wherein, in any given location of the first and second receiving units (110), the pair of signals (radio wave and reference signals) received by the first receiving unit is the same pair of signals that is received by the second receiving unit (signals are received at base repeaters 110, see col. 6, lines 35-53).

Regarding **claim 10,** Sanderford further discloses the telecommunications system according to claim 4, wherein in any given location of the first and second receiving units, the pair of signals received by the first receiving unit is a different pair of signals from the pair of signals received by the second receiving unit (radio wave signal from transmitter 106 at an unknown location and reference signal from a reference location, are received at the base repeater 110, see col. 6, lines 35-53).

Regarding **claim 11**, as applied to claim 4, Christy further teaches wherein the plurality of locations is three locations (mobile ships 106 and108, see Fig. 1).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claim 12**, as recited in claim 15, Sanderford further discloses that the signals received by the first and second receiving units are received in response to signals sent to the first and second transmitter units by the first and second receiving units (communication between network entities, see col. 4, lines 34-64).

Regarding **claims 13 and 23** as applied to claims 2 and 22, Sanderford further discloses the system, wherein the signals are further indicative of their quality or accuracy
(see col. 10, lines 25-53).

Regarding **claim 16,** Sanderford further discloses telecommunications system according to claim 15, wherein the said same receiver entity is arranged to act as the said first receiver during a first period of time and as the said second receiver during a second separate period of time (signal transmission from transmitters involves synchronization process, see col. 5, lines 15-62) .

Regarding **claim 19**, Sanderford discloses the claim limitations, but fails to teach one or both of the first and second transmitter units is a cellular base station.

Christy teaches teach one or both of the first and second transmitter units is a cellular base station (base stations 100, 102 and 104, see Fig. 1).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford and Haworth for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claim 20**, as recited in claim 15, Sanderford further discloses that one or both of the first and second receivers is a location measurement unit (base repeaters 110 computes the phase difference, see col. 5, line 35-46).

Regarding **claim 21,** Sanderford further discloses a telecommunications system according to claim 15, wherein the second transmitter unit is in a fixed location (the coarse fix unknown of transmitter 106 is computed, see col. 5, lines 48-62).

Regarding **claim 22,** Sanderford further discloses a telecommunications system according to claim 15, further comprising a calculation unit arranged to use the signals received by the first and second receiving units or any values derived from the said signals to ascertain the location of the second transmitter unit (central monitoring station 115 compute for the location of transmitter 106, see col. 5, lines 48-62).

Regarding **claim 24,** Sanderford discloses a telecommunications system according

to claim 22, located within a telecommunications network, wherein the calculation unit is a network management unit (central monitoring station 115 compute for the location of transmitter 106, see col. 5, lines 48-62).

Regarding **claim 26,** Sanderford discloses telecommunications system (position determination system 100, see Fig. 2) comprising:

a first transmitter unit situated at a first, known location (mobile reference transmitter 108);

a second transmitter unit situated at a second, unknown location (transmitter 108 at unknown location);

a first receiving unit at a third, known location arranged to receive signals from the first and second transmitter units (base repeater 110 at known location to receive reference and radio wave signals from the first and second transmitters respectively, see col. 6, lines 36-54), and

a second receiving unit (base repeater 110 at known location to receive reference and radio wave signals from the first (108) and second (106) transmitters respectively, see col. 6, lines 36-54) at a fourth, known location arranged to receive signals from the first and second transmitter units, wherein the said signal received by the first and second receiving units are usable to ascertain the location of the second transmitter unit, (base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47; and

a calculation unit arranged to use the signal received by the first and second receiving units or any value derived from the said signals to ascertain the location the location of the second transmitter unit (central monitoring station 115, which is coupled to base repeaters (110), uses the measurements from base repeaters to computer for the location of unknown transmitter 106, see col. 6, lines 36-54);

where in the calculation unit is arranged to verify the accuracy of the ascertained location of the second transmitter unit by comparing it with location information of the second transmitter unit obtained from other sources (the calculated accuracy of the location is 400 feet in the city, and the preliminary time-of-flight field test using cesium atomic clocks indicates 50 feet, see col. 6, lines 21-35); but fails to disclose that the first and second receivers are in the same entity.

However, Christy teaches mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claims 28 and 31**, Sanderford discloses the claims limitations, but fails to teach that the first and second transmitters are base stations and that the first and second receivers are in the same entity.

However, Christy teaches base stations 100, 102 and 104 (see Fig. 1); and mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **Claims 29 and 32**, Sanderford discloses the claimed limitations, but fails to teach that the transmitters are base stations and that the first and second receivers are in the same entity.

However, Christy teaches base stations 100, 102 and 104 (see Fig. 1); and mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claims 30 and 34** Sanderford discloses telecommunications system (position determination system 100, see Fig. 2) comprising:

a first transmitter unit situated at a first, known location (mobile reference transmitter 108);

a second transmitter unit situated at a second, unknown location (transmitter 108 at unknown location);

a first receiving unit at a third, known location arranged to receive signals from the first and second transmitter units (base repeater 110 at known location to receive reference and radio wave signals from the first and second transmitters respectively, see col. 6, lines 36-54), and further arranged to determine the time difference between the arrival times of a signal from the first transmitter unit and a signal from the second transmitter unit (base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47) and

a second receiving unit (base repeater 110 at known location to receive reference and radio wave signals from the first (108) and second (106) transmitters respectively, see col. 6, lines 36-54) at a fourth, known location arranged to receive signals from the first and second transmitter units, and further arranged to determine the time difference between the arrival time of a signal from the first transmitter unit and a signal from the second transmitter unit (base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47), wherein the said time differences determined by the first (110) and second receiving units (110) are usable to ascertain the location of the second transmitter unit

(central monitoring station 115, which is coupled to base repeaters (110), uses the measurements from base repeaters to computer for the location of unknown transmitter 106, see col. 6, lines 36-54); but fails to disclose that the first and second receivers are in the same entity.

However, Christy teaches mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

Regarding **claim 33,** Sanderford discloses a calculation unit (115) for use in a telecommunications system comprising:

a first transmitter unit situated at a first, known location (mobile reference transmitter 108);

a second transmitter unit situated at a second, unknown location (transmitter 108 at unknown location);

a first receiving unit at a third, known location arranged to receive signals from the first and second transmitter units (base repeater 110 at known location to receive reference and radio wave signals from the first and second transmitters respectively, see col. 6, lines 36-54), and further arranged to determine the time difference between

the arrival times of a signal from the first transmitter unit and a signal from the second transmitter unit (base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47) and

a second receiving unit (base repeater 110 at known location to receive reference and radio wave signals from the first (108) and second (106) transmitters respectively, see col. 6, lines 36-54) at a fourth, known location arranged to receive signals from the first and second transmitter units, and further arranged to determine the time difference between the arrival time of a signal from the first transmitter unit and a signal from the second transmitter unit (base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47),

wherein the said time differences determined by the first (110) and second receiving units (110) are usable to ascertain the location of the second transmitter unit (central monitoring station 115, which is coupled to base repeaters (110), uses the measurements from base repeaters to computer for the location of unknown transmitter 106, see col. 6, lines 36-54); but fails to disclose that the first and second receivers are in the same entity.

However, Christy teaches mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of

achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

11. **Claims 17,18 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderford, in view of Christy and further in view of Hussa (U.S. 6,611,788), (hereinafter Hussa)**

Regarding **claim 17**, Sanderford discloses the claim limitations, but the combination of Sanderford and Christy fails to teach that the one or both of the first and second receivers is a mobile telephone.

Hussa discloses cellular communication network system including a mobile Station, base station, a core network and radio network controllers (see col.1, lines 47-53). Hussa further teaches that the mobile station is may comprise of a cell phone (see col. 8, lines 9-15).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Hussa with the system of Sanderford and Christy for the benefit of achieving a system with a mobile cell phone that could be tracked.

Regarding **claim 18**, as applied to claim 17, the combination of Sanderford and Christy fails to disclose said mobile telephone supports Enhanced Observed Time Difference (E-OTD) location method and Global Positioning System (GPS) location method, or Observed Time Difference Of Arrival (OTDOA) location method and Global Positioning System (GPS) location method.

Hussa discloses cellular communication network system including a mobile

Station, base station, a core network and radio network controllers (see col.1, lines 47-53). Hussa further teaches an E-OTD and GPS methods with the mobile cell phone (see col. 4, lines 31-44).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Hussa with the system of Sanderford and Christy for the benefit of achieving a system with E-OTD and GPS method of determining time difference between signal receptions.

Regarding **claim 25** as applied to claim 22, the combination of Sanderford and Christy fails to teach the calculation unit is a Serving Mobile Location Centre.

Hussa discloses cellular communication network system including a mobile station, base station, a core network and radio network controllers (see col.1, lines 47-53 and col. 4, lines 21-31). Hussa further teaches a serving mobile location center (SMLC) which may be integrated into the radio network controller (RNC).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Hussa with the system of Sanderford and Christy for the benefit of achieving a system with SMLC where a calculation of time of arrival is stored.

12. **Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderford in view of Christy and further in view of Shoji et al. (U.S. 134,448), (hereinafter Shoji).**

Regarding **claim 27,** Sanderford discloses telecommunications system (position determination system 100, see Fig. 2) comprising:

a first transmitter unit situated at a first, known location (mobile reference transmitter 108);

a second transmitter unit situated at a second, unknown location (transmitter 108 at unknown location);

a first receiving unit at a third, known location arranged to receive signals from the first and second transmitter units (base repeater 110 at known location to receive reference and radio wave signals from the first and second transmitters respectively, see col. 6, lines 36-54), and

a second receiving unit (base repeater 110 at known location to receive reference and radio wave signals from the first (108) and second (106) transmitters respectively, see col. 6, lines 36-54) at a fourth, known location arranged to receive signals from the first and second transmitter units, wherein the said signal received by the first and second receiving units are usable to ascertain the location of the second transmitter unit, (base repeater 110 computes the phase difference, which is related to time difference, of the signals it receives, see col. 5, lines 25-47); but fails to disclose that the first and second receivers are in the same entity and wherein the ascertained location of the second transmitter unit is usable to check the accuracy of identification information of the second transmitter unit obtained form other sources and thus identify the second transmitter.

However, Christy teaches mobile ships 106 and 108 that include plurality of receivers 160 (see col. 10, lines 49-64; whereby the possession of three receivers in each ship is been associated with "first and second receivers are in the same entity".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Christy with the system of Sanderford for the benefit of achieving a system that can simultaneously produce positioning data for a plurality stations relative to the position of known base stations (see Christy, col. 2, lines 25-30).

The combination of Sanderford and Christy fails to teach wherein the ascertained location of the second transmitter unit is usable to check the accuracy of identification information of the second transmitter unit obtained form other sources and thus identify the second transmitter.

Shoji teaches that the position calcular of the mobile station is determined by the information accurate information obtained from the base station (see col. 4, lines 32-38)

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Shoji with the system of Sanderford and Christy for the benefit of achieving a system that can use an accurate information from the base station to determine an unknown position of a mobile phone.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Perl et al., (20050035897 A1) teaches a target location using TDOA distributed antenna.

Holt (20030052821 A1) teaches a method and system for calibrating wireless location system.

Stilp et al.,(20050024265 A1) teaches a multiple pass location processor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8566. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. Formore information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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